



WORLD'S SAFEST RUNWAY LIGHTING

SOLAR AIRFIELD LIGHTING



ABOUT S4GA

S4GA is an airfield lighting company that designs, manufactures, and supplies certified airfield lighting systems to civil and military customers Worldwide.

As of 2022, S4GA delivered over 125 applications to more than 50 countries. Airports in Africa, Southeast Asia, South America, Oceania and Europe are successfully using S4GA systems.

We offer solar, wired, and portable airfield lighting systems. All products are manufactured in Poland. S4GA holds ISO 9001-2015 Certificate.

WE OPERATE GLOBALLY



WE OFFER SOLAR AIRFIELD LIGHTING

For regional, domestic, and military airports located in remote areas. Looking for easy-to-maintain permanent airfield lighting. We offer complete solar system with control & monitoring. S4GA airfield lighting is compliant with ICAO, EASA, FAA, MOS, NATO STANAG.



APPROACH, RUNWAY, & TAXIWAY LIGHTING



LED PAPI



AIRFIELD LIGHTING CONTROL & MONITORING SYSTEM

FEASIBILITY STUDY



Testing of S4GA equipment to make sure it will operate on solar energy as long as airport requires.

AIRFIELD LIGHTING DESIGN



Airfield lighting design prepared together with certificates, manuals, and test reports required by the airport.

EQUIPMENT MANUFACTURING



All products are manufactured in Poland. S4GA holds ISO 9001_2015 Certificate.

INSTALLATION & TRAINING



Installation takes one week. S4GA offers supervision of installation and provides training.

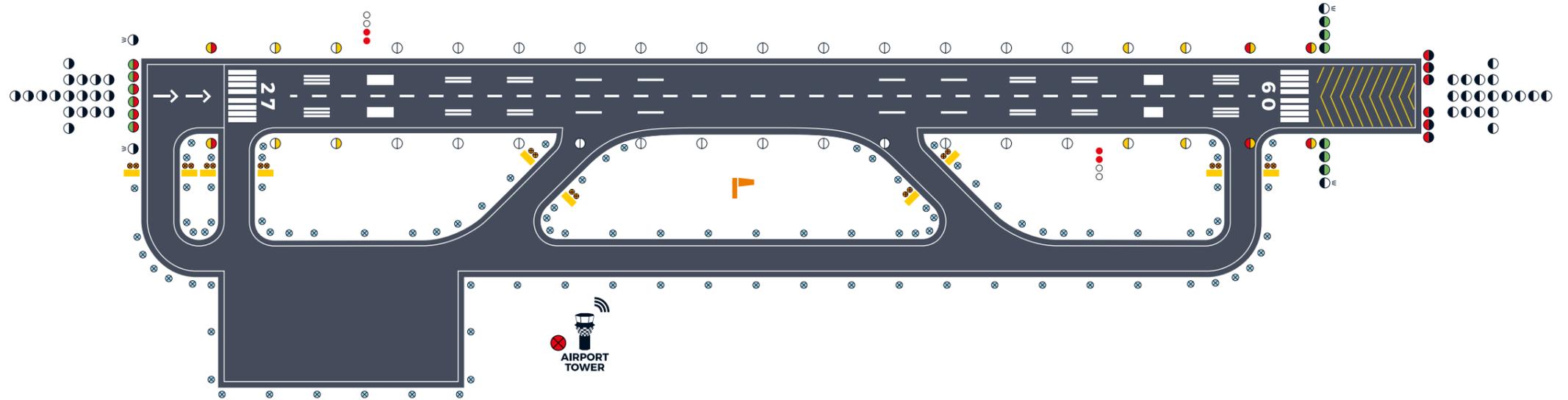
MAINTENANCE SUPPORT



99% of troubleshooting cases are successfully solved by S4GA managers remotely.

PRECISION (CAT I) RUNWAY

APPROACH & PAPI	
SP-401 SOLAR HIGH INTENSITY APPROACH LIGHT High intensity White (clear) Remote control NVG-compatible 16 000 cd light output Operates 365 days on solar	SP-401 SOLAR RUNWAY THRESHOLD IDENTIFICATION LIGHT Medium intensity Flashing white 1 200 cd light output Remote control NVG-compatible Operates 365 days on solar
LED PRECISION APPROACH PATH INDICATOR LED multi-lamp type Remote control 10 km+ visibility NVG-compatible Power supply: 6.6 Amp, 110-230 VAC, 24 VDC	SE-302 SOLAR ENGINE 640 W solar panel 5 280 Wh power bank Applicable for LED PAPI



RUNWAY					
SP-401 SOLAR HIGH INTENSITY RUNWAY EDGE LIGHT High intensity White/white, white/yellow, yellow/red 16 000 cd light output Remote control NVG-compatible Operates 365 days on solar	SP-401 SOLAR HIGH INTENSITY RUNWAY THRESHOLD LIGHT High intensity Unidirectional green 11 400 cd light output Remote control NVG-compatible Operates 365 days on solar	SP-401 SOLAR HIGH INTENSITY RUNWAY END LIGHT High intensity Unidirectional red 2 700 cd light output Remote control NVG compatible Operates 365 days on solar	SP-401 SOLAR TURNING PAD LIGHT Omnidirectional blue 11 cd light output Remote control NVG-compatible Operates 365 days on solar	SP-200 LIRE SOLAR LED INSET RUNWAY EDGE LIGHT LED type High intensity White/white, white/yellow, yellow/red Remote control	SP-200 LIRH SOLAR LED INSET THRESHOLD END LIGHT LED type High intensity Red/green Remote control

AGL CONTROL & MONITORING				
ALCMS ADVANCED Custom airfield layout Individual light status display Grouping of lights: up to 150 circuits 6-step Light Intensity Setup (optionally 6-steps) Operating mode setup (Visible/NVG/Remote/Autonomous) Scenarios selection	UR-201 CONTROL AND MONITORING UNIT Airfield lighting control panel Automatic failure alarm via SMS Remote activation via VHF, GSM Remote airfield lighting diagnostics Obligatory part of ALCMS	UR-101 HANDHELD CONTROLLER Grouping of lights: up to 5 groups 3-step light intensity setup Operating mode setup (Visible/NVG/dusk-till-dawn)	UR-1 WIRELESS CONTROLLER Remote control of wired airfield infrastructure	UR-4 WIRELESS CCR CONTROLLER Applicable for Multi-Wire CCR Control Remote CCRs activation Remote CCRs control via ALCMS

TAXIWAY & APRON			
SP-401 SOLAR TAXIWAY EDGE LIGHT Omnidirectional blue 11 cd light output Remote control NVG-compatible Operates 365 days on solar	SP-401 SOLAR OBSTRUCTION LIGHT Low intensity, type A Omnidirectional red 37 cd light output Remote control NVG-compatible Operates 365 days on solar	SOLAR RUNWAY GUARD LIGHT Flashing yellow 3 500 cd light output Remote control Operates 365 days on solar	TAXIWAY RETROREFLECTIVE MARKER Weather resistant Jet blast resistant Frangible Maintenance-free

WIND CONES & SIGNS		
SOLAR WIND DIRECTION INDICATOR Weather resistant Internally illuminated Solar-powered	AIRPORT GUIDANCE SIGN Weather resistant Internally illuminated Solar-powered	SOLAR ENGINE COMPACT 100 W solar panel 1200 Wh power bank Applicable for runway guard light, and guidance sign

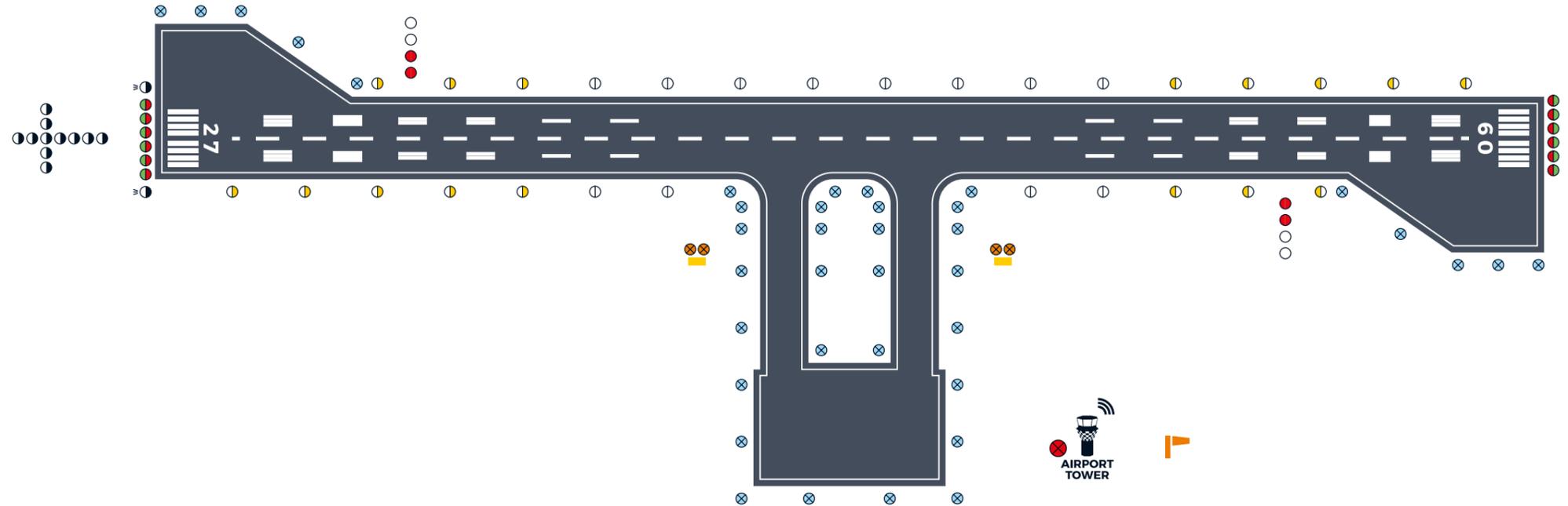
ACCESSORIES			
OCT-401 CHARGER FOR 10 X SP-401 AIRFIELD LIGHTS	OCT-1 CHARGER FOR 1 X SP-401 AIRFIELD LIGHT	MOUNTING FOR CONCRETE/ASPHALT Galvanized steel Optionally: stainless steel	RUBBER PAD FOR SP-401 SOLAR AIRFIELD LIGHT

NON-PRECISION OR VISUAL APPROACH RUNWAY

APPROACH & PAPI	
SP-401 SOLAR APPROACH LIGHT Medium intensity White (clear) Remote control NVG-compatible 1 200 cd light output Operates 365 days on solar	SP-401 SOLAR RUNWAY THRESHOLD IDENTIFICATION LIGHT Medium intensity Flashing white 1 200 cd light output Remote control NVG-compatible Operates 365 days on solar
LED PRECISION APPROACH PATH INDICATOR LED multi-lamp type Remote control 10 km+ visibility NVG-compatible Power supply: 6.6 Amp, 110-230 VAC, 24 VDC	SE-302 SOLAR ENGINE 640 W solar panel 5 280 Wh power bank Applicable for LED PAPI

RUNWAY		
SP-401 SOLAR RUNWAY EDGE LIGHT Medium intensity White/white, white/yellow, yellow/red 16 000 cd light output Remote control NVG-compatible Operates 365 days on solar	SP-401 SOLAR RUNWAY THRESHOLD END LIGHT Medium intensity Bidirectional red/green 320 / 450 cd light output Remote control NVG-compatible Operates 365 days on solar	SP-401 SOLAR TURNING PAD LIGHT Medium intensity Omnidirectional blue 11 cd light output Remote control NVG-compatible Operates 365 days on solar

WIND CONES & SIGNS		
SOLAR WIND DIRECTION INDICATOR Weather resistant Internally illuminated Solar-powered	AIRPORT GUIDANCE SIGN Weather resistant Internally illuminated Solar-powered	SOLAR ENGINE COMPACT 100 W solar panel 1200 Wh power bank Applicable for runway guard light, and guidance sign



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ACCESSORIES			
OCT-401 CHARGER FOR 10 X SP-401 AIRFIELD LIGHTS	OCT-1 CHARGER FOR 1 X SP-401 AIRFIELD LIGHT	MOUNTING FOR CONCRETE/ASPHALT Galvanized steel Optionally: stainless steel	RUBBER PAD FOR SP-401 SOLAR AIRFIELD LIGHT

AGL CONTROL & MONITORING	
ALCMS BASIC Individual light status display 1-6 Groups/Circuits Control (optionally up to 12) 5-step light intensity setup (optionally 6-steps) Operating mode setup (Visible/NVG/remote/autonomous)	UR-201 CONTROL AND MONITORING UNIT Airfield lighting control panel Automatic failure alarm via SMS Remote activation via VHF, GSM Remote airfield lighting diagnostics Obligatory part of ALCMS
UR-101 HANDHELD CONTROLLER Grouping of lights: up to 5 groups 3-step light intensity setup Operating mode setup (Visible/NVG/dusk-till-down)	MOBILE TOUCHSCREEN WITH ALCMS Multi-touch screen 4200 mAh Li-ion smart battery Integrated GPS Vibration & 6ft drop resistant

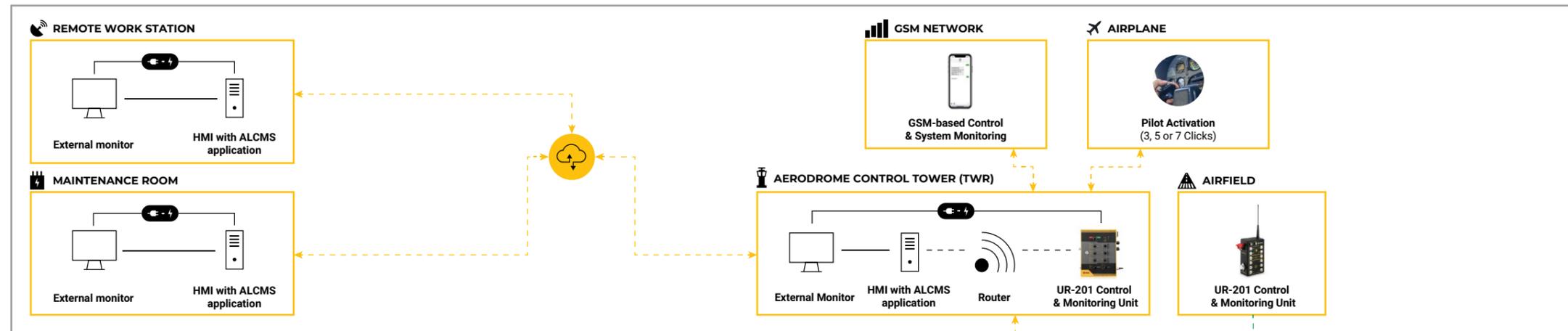
ALCMS

AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM

Provides remote control and Individual Light Status Monitoring of S4GA solar airfield lighting from the ATC Tower or maintenance center

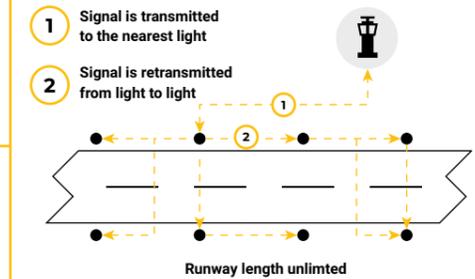


CONTROL SYSTEM



WIRELESS MESH NETWORK

EACH LIGHT IS A TRANSMITTER



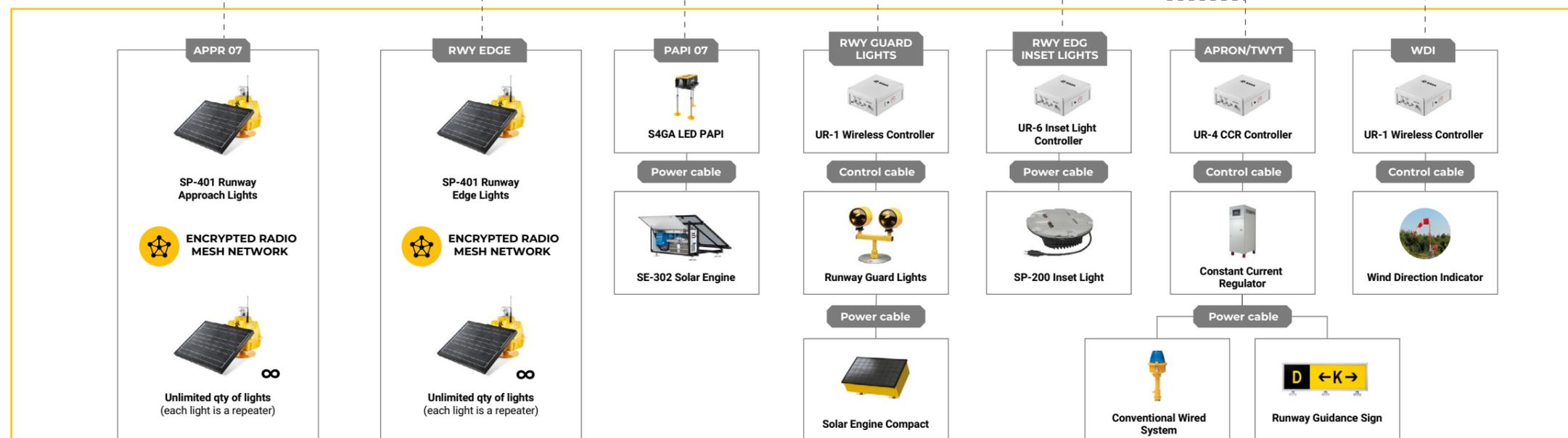
OPERATING RANGE AND FREQUENCY

Control TWR to the nearest light	Up to 1.5 km 868 MHz, Mesh
Handheld Controller to the nearest light	Up to 1.5 km 868 MHz, Mesh
Communication between the lights	Up to 1.5 km 868 MHz, Mesh
Pilot Activation (3, 5 or 7 clicks)	Up to 20 km 118-136 MHz
GSM network	Unlimited 900/1800 MHz
Remote work station (WLAN)	Unlimited Internet Connection

ENCRYPTED AUTHENTICATED

Control system communicates with the airfield lighting VIA encrypted and authenticated radio mesh network

MONITORING SYSTEM



MONITORING SYSTEM

MAIN FEATURES

- Real-time monitoring (27 parameters)
- Individual Light Status Monitoring
- System Performance Reporting
- Automatic failure notifications
- Automatic alarm emails
- Prioritization of warning information (critical failure on top)
- Predictive & preventive maintenance

CONTROL SYSTEM

MAIN FEATURES

- Grouping of lights: up to 150 circuits
- Light intensity: up to 100 levels
- Customized airfield layout
- Operates in special modes
- NVG, Remote, Autonomous
- Pilot controlled activation
- Timer adjustment (15 - 120 minutes)

CONTROL SYSTEM

Necessary System Updates can be performed remotely by the S4GA Support Team

WHY IS S4GA BETTER?

S4GA SOLAR AIRFIELD LIGHT		OTHER SOLAR LIGHT	
	AIRFIELD FIXTURE DESIGN		MARINE LANTERN DESIGN Not suitable for airport use
	COMPLIANT Compliant with ICAO, FAA, MOS, EASA, NATO STANAG Entire unit frangibility certified 240 kph jet blast resistance certified 10+ km high visibility confirmed 50+ certificates available		NON-COMPLIANT Non-compliant with ICAO No certification on frangibility Not tested on jet blast resistance Hardly visible from far distance
	PERMANENT 20+ years system lifespan Solar collection covers 100% of energy needs 27.000 Wh generated by solar panel annually		TEMPORARY 7 years maximum system lifespan Not enough solar collection 11.000 Wh generated by solar panels annually
	PROTECTED FROM BLACKOUT Reliable wireless network Backup power source Backup control		UNRELIABLE Poor wireless connection No backup power source Limited control
	ALCMS MONITORING Individual light status monitoring Preventive maintenance diagnostics		NO MONITORING No data on the status of the system No data on individual light status No data on maintenance
	EASY MAINTENANCE All compartments are replaceable Low battery cost		EXPENSIVE MAINTENANCE Non-replaceable parts Expensive batteries required



DESIGN SOLAR AIRFIELD LIGHTING IN 4 SIMPLE STEPS

WE WILL SUPPORT YOU WITH ALL PROJECT MATERIALS

FEASIBILITY STUDY

Ask for solar feasibility study to validate that S4GA system will maintain daily operations according to airport requirements and without the risk of blackout

01

COST COMPARISON SOLAR VS 6.6A SYSTEM

Request cost comparison of solar and 6.6 Amp (CCR-powered) system. Find out why solar system is cheaper in terms of CAPEX, OPEX, and maintenance cost

02

SOLAR AIRFIELD LIGHTING DESIGN

Ask for free AGL design prepared by experienced airport designer and performed in compliance with ICAO/ EASA

03

TECHNICAL / TENDER SPECIFICATIONS

Utilize purchase specifications available online for every S4GA product

04



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